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Amendment in Response to Non-Final Office Action (PI1615 US NA)  
(16 pages - includes cover sheet)

This collection of information is required by 37 CFR 1.8. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.8 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/713,535      | 11/12/2003  | Alan Martin Allgeier | PI1615USNA          | 9320             |

43693 7590 01/24/2006

INVISTA NORTH AMERICA S.A.R.L.  
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WILMINGTON, DE 19808

EXAMINER

SACKEY, EBENEZER O

ART UNIT

PAPER NUMBER

1626

DATE MAILED: 01/24/2006

GET NOTED

Please find below and/or attached an Office communication concerning this application or proceeding.

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JAN 2

**Action Required**

|                              |                               |                                       |  |
|------------------------------|-------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/713,535 | Applicant(s)<br>ALLGEIER, ALAN MARTIN |  |
|                              | Examiner<br>EBENEZER SACKY    | Art Unit<br>1626                      |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- IF NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

GET NOTED

1) ☒ Responsive to communication(s) filed on 14 December 2005.

2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-6 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-6 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All    b) ☐ Some \* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/14/05.

4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION****Status of Claims**

Claims 1-6 are pending.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Information Disclosure Statement***

Receipt of the Information Disclosure statement filed 12/14/05 is acknowledged and has been entered into the file. A signed copy of the 1449 is attached herewith.

**Claim Rejections - 35 U.S.C. § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allgeier et al., (U.S. Patent number 6,376,714)('714').

Applicant claims a process of hydrogenating a dinitrile comprising contacting the dinitrile with hydrogen in the presence of a catalyst and a modifier at a pressure of about 2200 psig, wherein the catalyst comprises an element selected from the group consisting of Fe, Ru, Co and Ni and said modifier is selected from the group consisting of quaternary ammonium hydroxides, quaternary ammonium cyanides, quaternary ammonium fluorides, quaternary ammonium thiocyanides, quaternary phosphonium hydroxides, carbon monoxide and hydrogen cyanide.

Allgeier et al., discloses a process for hydrogenating a dinitrile, which comprises forming a reaction mixture that comprises an aliphatic or alicyclic dinitrile, hydrogen, a catalyst comprising Group VIII element and one or more modifiers selected from quaternary ammonium hydroxides, quaternary ammonium cyanides, quaternary ammonium fluorides, quaternary ammonium thiocyanides, quaternary phosphonium hydroxides. See the entire reference especially column 1, lines 63-67 bridging column 2, lines 1-7. It is noted that the reference operating temperature is between 50-150°C,

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which is an overlap between instant claim 2, which is drawn to a temperature range of about 50°C to 250°C. See column 4, lines 46-49.

Thus, the instant claims differ from '714' in the operational pressure of at least 2200 psig.

This difference is not considered a patentable distinction and is thus, *prima facie* obvious absent a showing of unexpected results. There is no indication by way of evidence or otherwise in the specification that discloses the significance of the claimed temperature and pressure in the process as claimed herein.

The claimed temperatures and pressure are an obvious modification available to one of ordinary skill in the art. They are merely optimization of variables, which are not patentable absent unexpected result due to these variables, and hence are a difference in kind, and not merely in degree from that of the prior art. *In re Aller*, 105 USPQ 233, (1955). Also see *In re Boesch*, 205 USPQ, 215, (1980). The reference discloses the hydrogenation of a dinitrile to produce a product. The reference process and the instant process are essentially the same and will prepare essentially the same product(s). Thus, a slight difference in temperature and pressure may serve to differentiate the process from under 35 U.S.C. 102, but does not serve to remove the relied upon reference from under 35 U.S.C. 103.

Therefore, at the time of filing this application, one of ordinary skill in the art would thus, have been motivated to hydrogenate dinitriles with the required reactants of Allgeier et al., with the expectation that the resulting product(s) would maintain high yield and/or selectivity because precise indicated temperature and pressure are preferred.

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Accordingly, it would have been *prima facie* obvious to one of ordinary skill in the art to hydrogenate dinitriles as disclosed by the reference with the required reactants and maintenance elements because explicit temperatures and pressures are preferred and maintaining those variables has been expected to operate with a reasonable expectation of success. Hence, the instantly claimed process would therefore have been suggested to one of ordinary skill in the art absent a showing of unexpected results.

---

Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Sackey whose telephone number is (571) 272-0704.


The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane, can be reached on (571) 272-0699. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

EOS

January 21, 2006

  
Joseph K. McKane  
Supervisory Patent Examiner  
Art Unit 1626, Group 1600  
Technology Center 1

DEC. 14. 2005 1:31PM

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| Substitute for form 1443/PTO  |                        | <b>Complete if Known</b> |                   |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>(Use as many sheets as necessary) |                        | Application Number       | 10/719,535        |
|   |                        | Filing Date              | November 12, 2003 |
|   |                        | First Named Inventor     | Alan M. Allgeier  |
|   |                        | Art Unit                 | Unknown 1126      |
|   |                        | Examiner Name            | Unknown E. Sackey |
| Sheet 1 of 1  | Attorney Docket Number | P11816USNA               |                   |

| U.S. PATENT DOCUMENTS |          |   |                                |   |   |
|-----------------------|----------|---|--------------------------------|---|---|
| Examiner Initials*    | Cite No. | Document Number<br>Number/Kind Code <sup>2</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| ES                    |          | US- 3,773,892   | 11-20-1973                     | L. Brake  |   |
|                       |          | US- 3,758,584   | 09-11-1973                     | Alvans et al.                                   |   |
|                       |          | US- 6,181,543   | 09-29-1992                     | S. B. Ziemecki                                  |   |
|                       |          | US- 6,110,858   | 08-29-2000                     | Flick et al.                                    |   |
|                       |          | US- 6,259,745   | 07-10-2001                     | Ionkin et al.                                   |   |
|                       |          | US- 6,376,714   | 04-23-2002                     | Allgeier et al.                                 |   |
| ES                    |          | US- 6,586,297   | 05-20-2003                     | Ionkin  |   |
|                       |          | US-   |                                |   |   |
|                       |          | US-   |                                |   |   |
|                       |          | US-   |                                |   |   |
|                       |          | US-   |                                |   |   |
|                       |          | US-   |                                |   |   |
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|                       |          | US-   |                                |   |   |
|                       |          | US-   |                                |   |   |
|                       |          | US-   |                                |   |   |

| FOREIGN PATENT DOCUMENTS |          |  |                                |   |   |
|--------------------------|----------|--|--------------------------------|---|---|
| Examiner Initials*       | Cite No. | Foreign Patent Document<br>Country Code <sup>2</sup> Number <sup>2</sup> Kind Code <sup>2</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| ES                       |          | GD 728,599   | 04-20-1955                     | DuPont  |   |
|                          |          | WIPO 1999/047492   | 09-23-1999                     | DuPont  |   |
|                          |          | WIPO 2002/095862   | 12-06-2002                     | DuPont  |   |
|                          |          | WIPO 2003/006651   | 01-23-2003                     | Pioneer Hi-Bred Inter.                          |   |

|                    |                        |                 |          |
|--------------------|------------------------|-----------------|----------|
| Examiner Signature | <i>Benjamin Sackey</i> | Date Considered | 01/20/06 |
|--------------------|------------------------|-----------------|----------|

\*EXAMPLE: This reference is made, whether or not citation is in compliance with MPEP 809. Draw this through check if not in compliance and not consider. Indicate in this form with first communication to applicant. \*Applicant's unique citation designation number (optional). \*See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. \*Enter Office that issued the document, by the two-letter code (WIPO Standards 57.3). \*For Japanese patent documents, the indicia 1 of the year of the Empire must precede the serial number of the patent document. \*Kind of document by the appropriate symbol as indicated on the document under WIPO Standard ST.16 if possible. \*Applicant is to place a check mark here if English language translation is attached.

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PAGE 3/5 \* RCVN AT 1: 14/2005 11:18:07 PM [Eastern Standard Time] \* SVR:USPTO-EFXXF-6725 \* DUIS:2738300 \* CSID:3029994693 \* DURATION (mm-ss):01:44

PAGE 16/16 \* RCVN AT 4/24/2006 10:33:27 AM [Eastern Daylight Time] \* SVR:USPTO-EFXXF-6724 \* DUIS:2738300 \* CSID:3026833474 \* DURATION (mm-ss):04:08

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